

## **Chapter 5**

### **Result**

Step 1: We recorded the speech signal of an individual 3 times using normalisedlpc.m file.

Step 2: We took about 150-210 samples of speech signal.

Step 3: We saved the database using Matlab file.

Step 4: Then we trained it using BP algorithm, we took about 150 iterations.

Step 5: We then successfully predicted the speech signal.

Step 6: Proper communication between two Zigbee

We got result for good communication between two ZigBee module that is given below:  
below figure shows the difference between sender content in blue color and receiver content in red color.

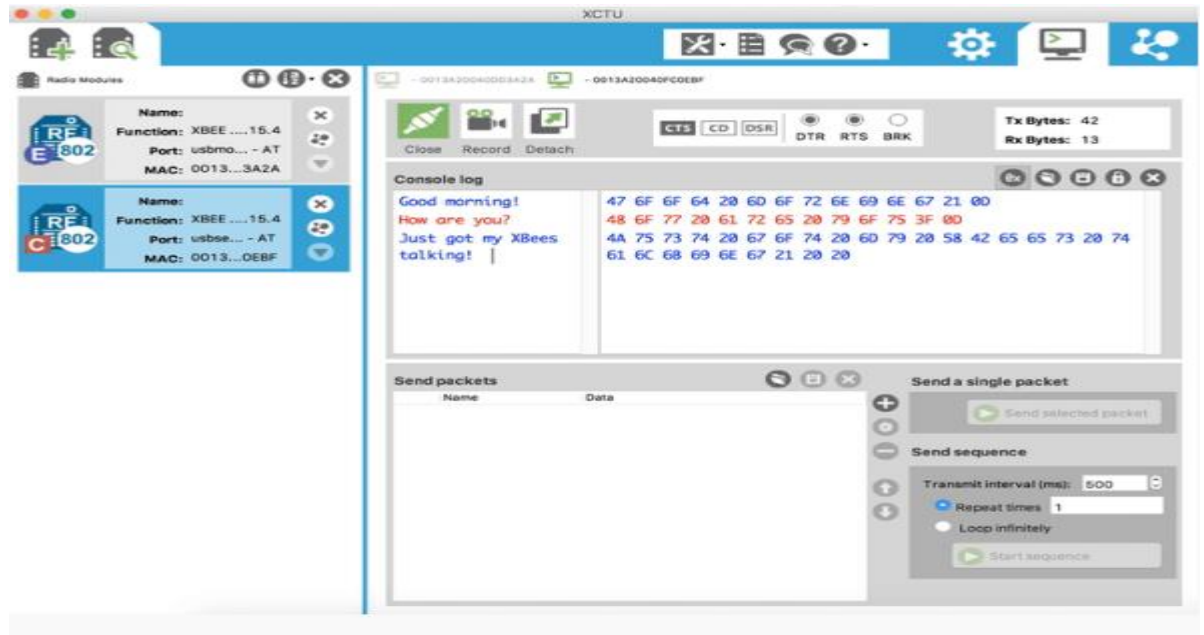


Fig.5 (a) Communication between Receiver and Transmitter

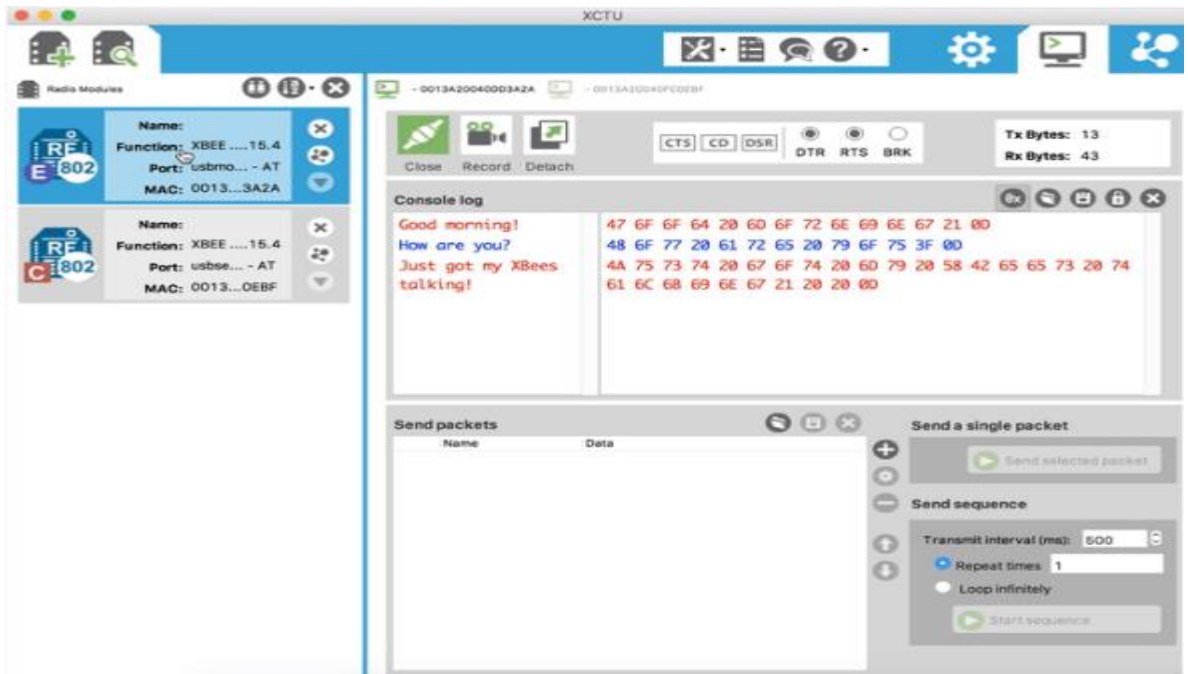


Fig.5 (b) Communication between Receiver and Transmitter

Step 7: Good result for communication between

Arduino → ZigBee ↔ ZigBee → Arduino → LED  
for controlling LED.

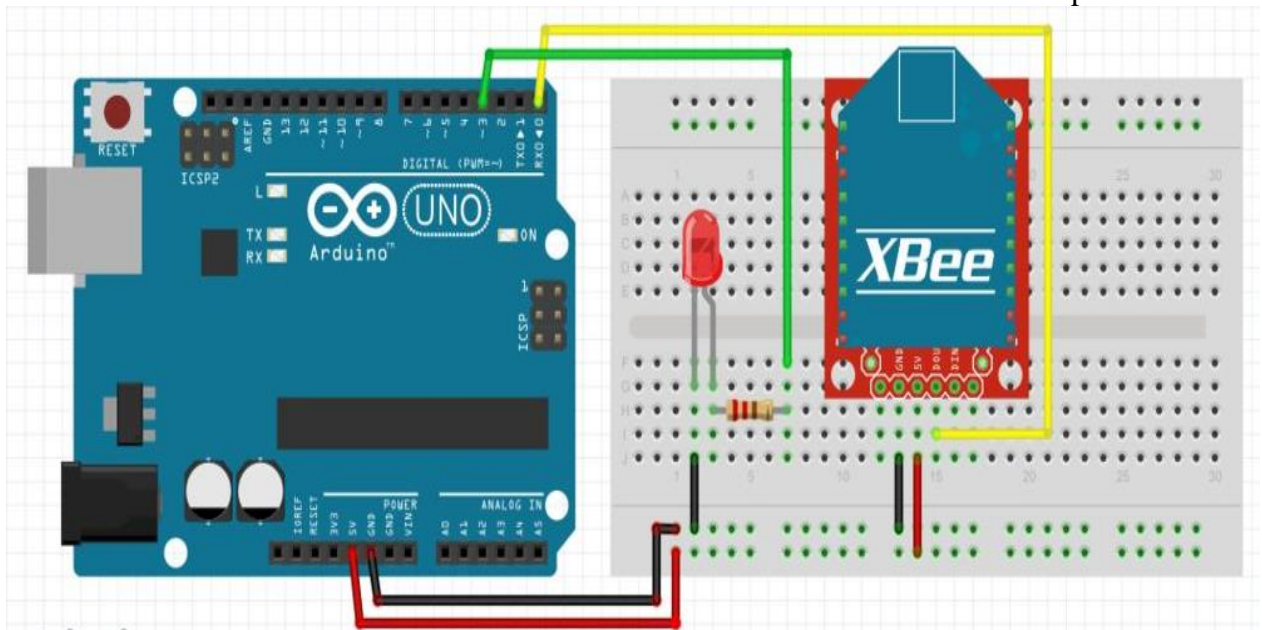


Fig. 5(c) Receiver

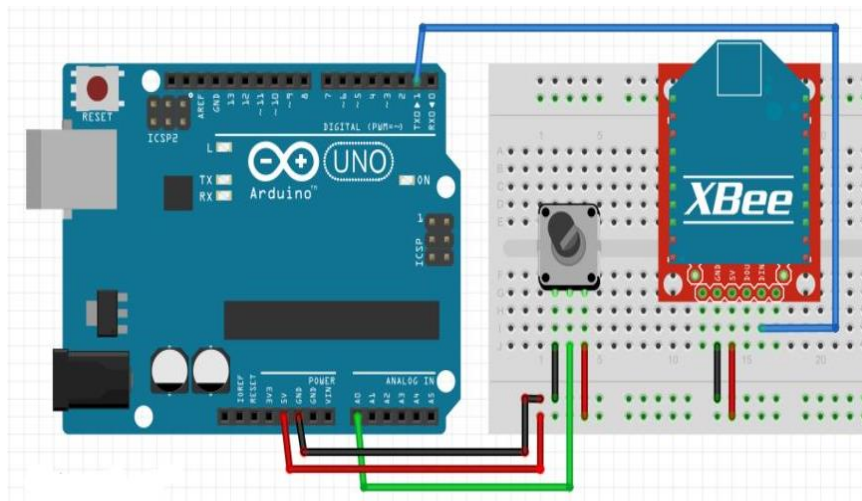


Fig. 5(d) Transmitter

Step 8: The problem faced during making connection between

MATLAB → ZigBee ↔ ZigBee → Arduino → DC Motor

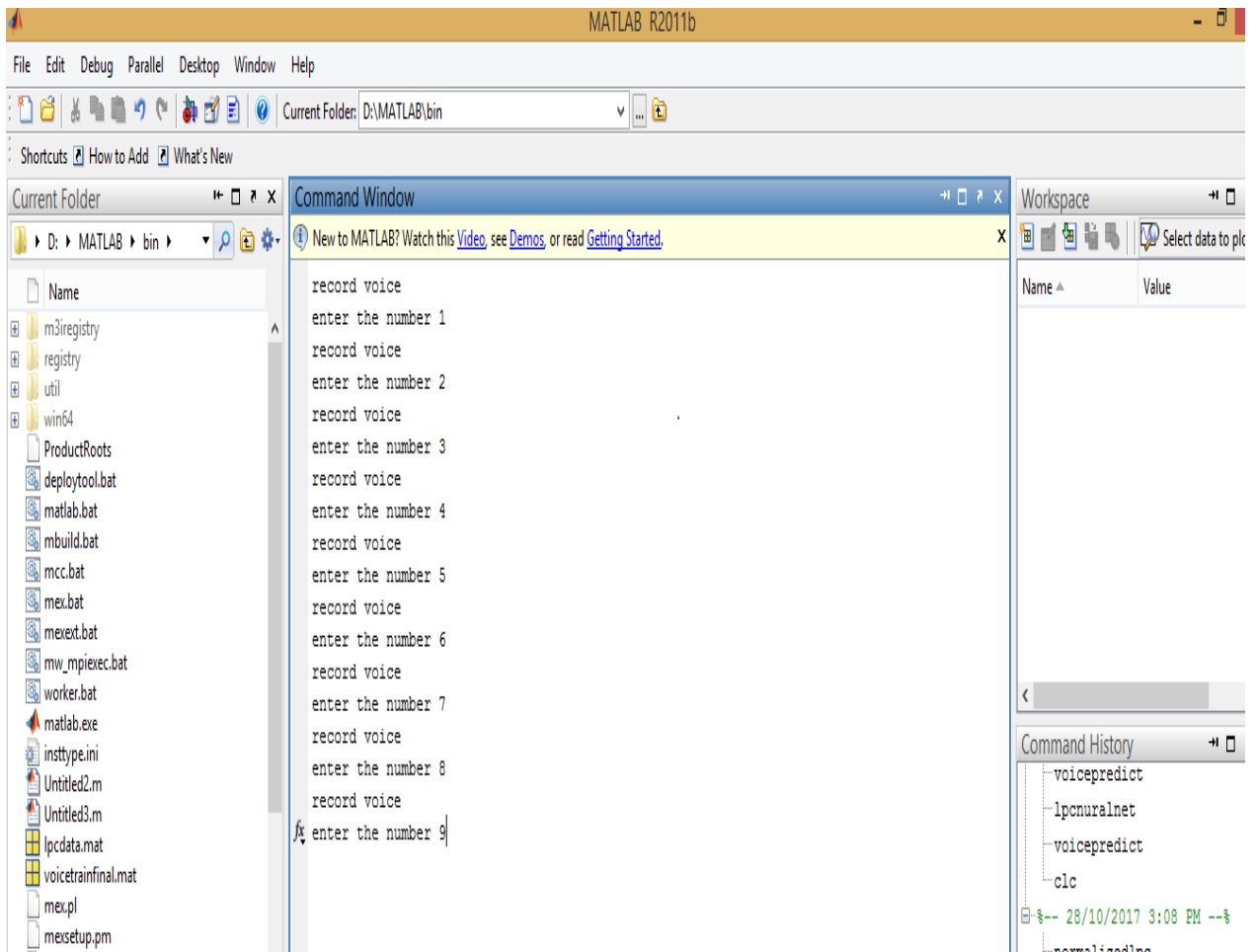


Fig. 5(e) Record &amp; save voice samples

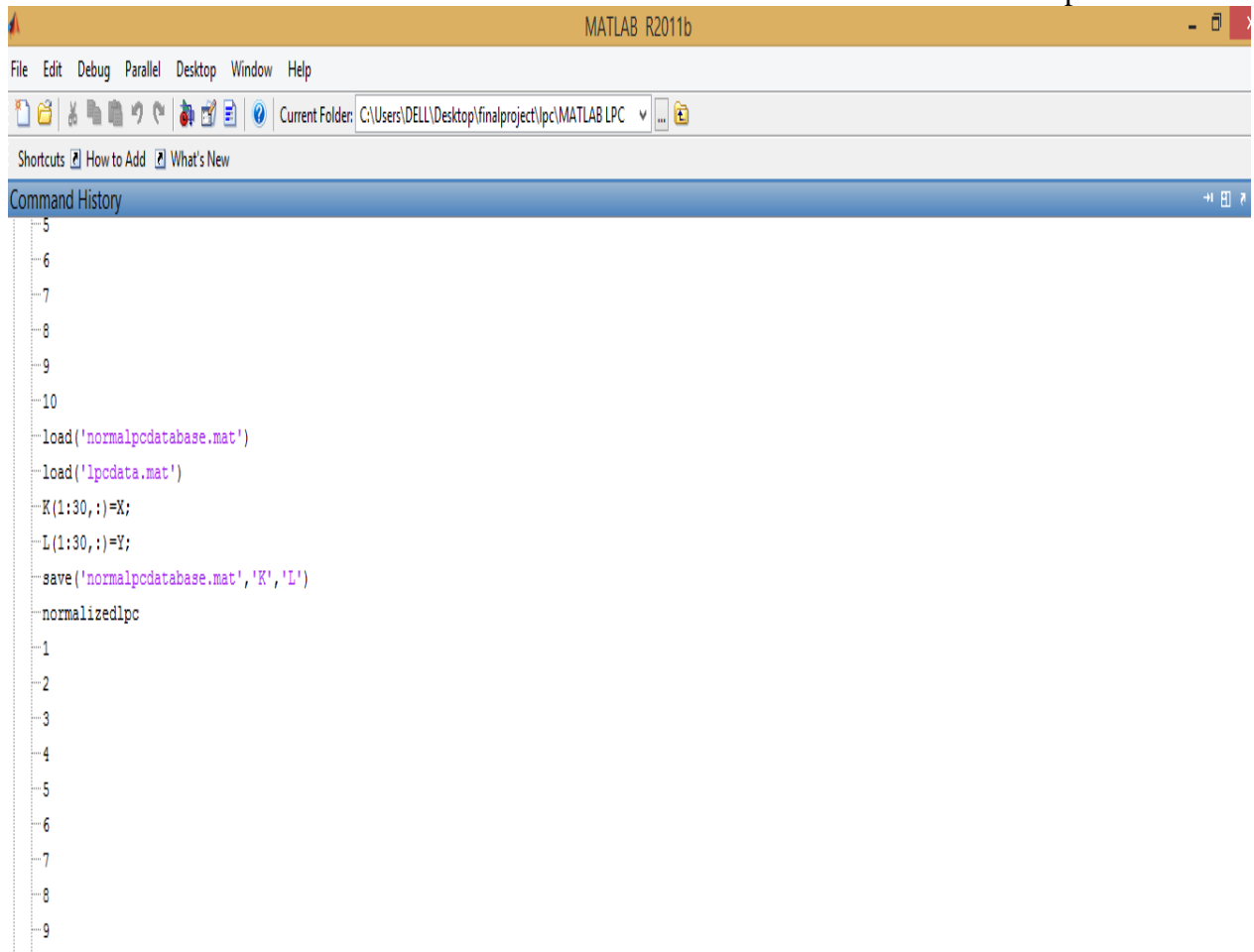


Fig. 5(f) Create &amp; save Database file

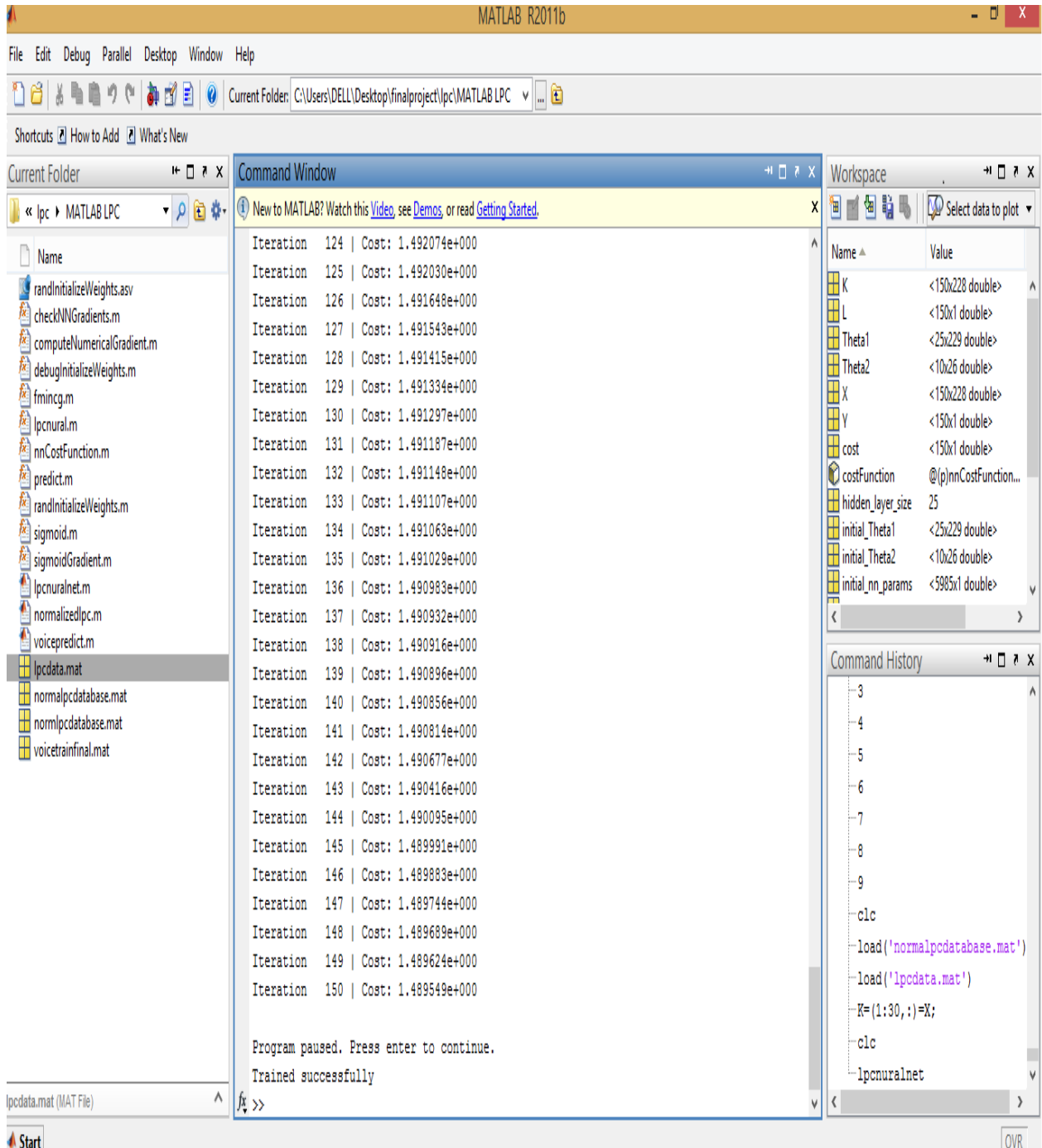


Fig. 5(g) Iterations of sampled voice

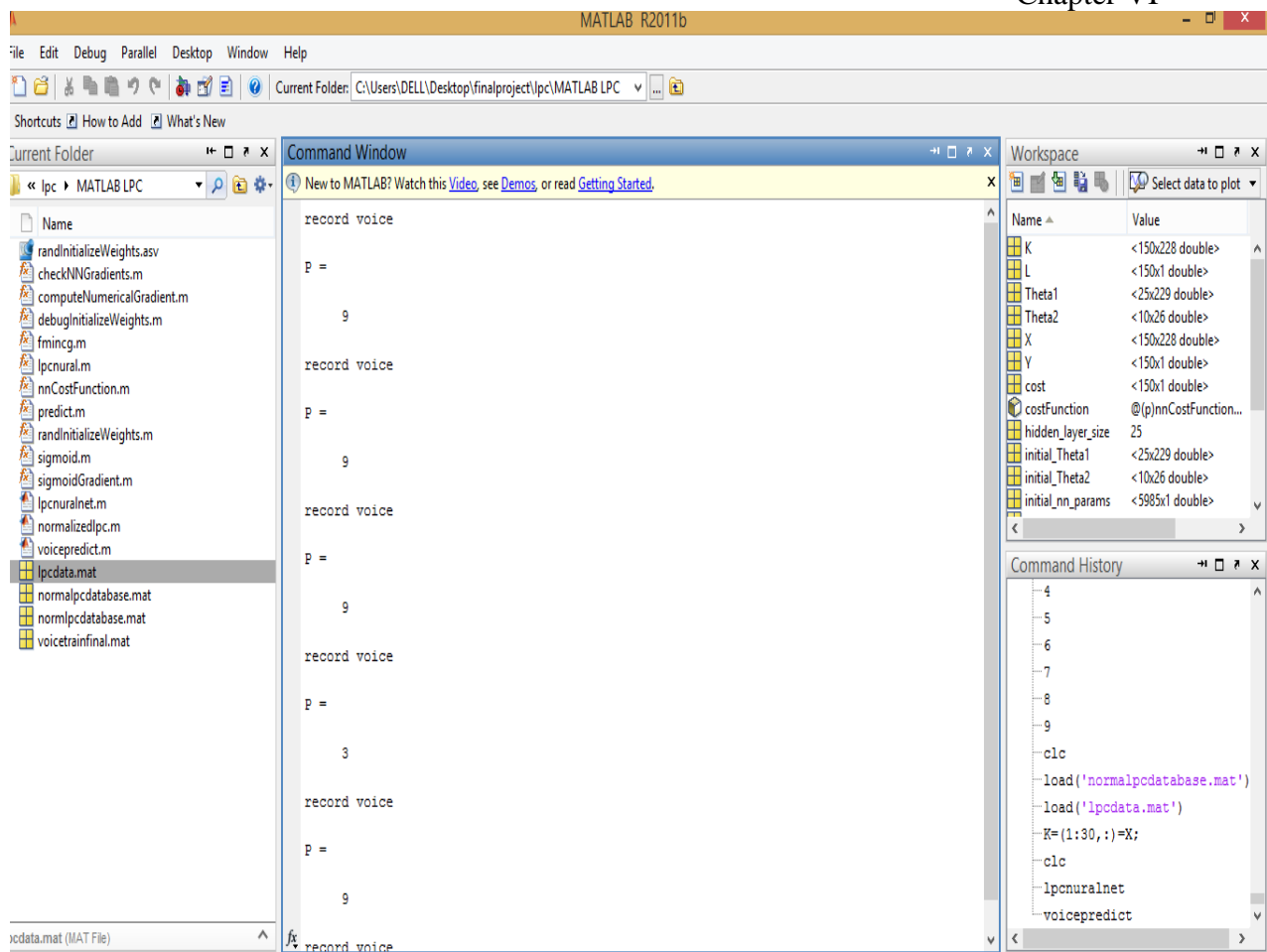


Fig. 5(h) Recognized numbers

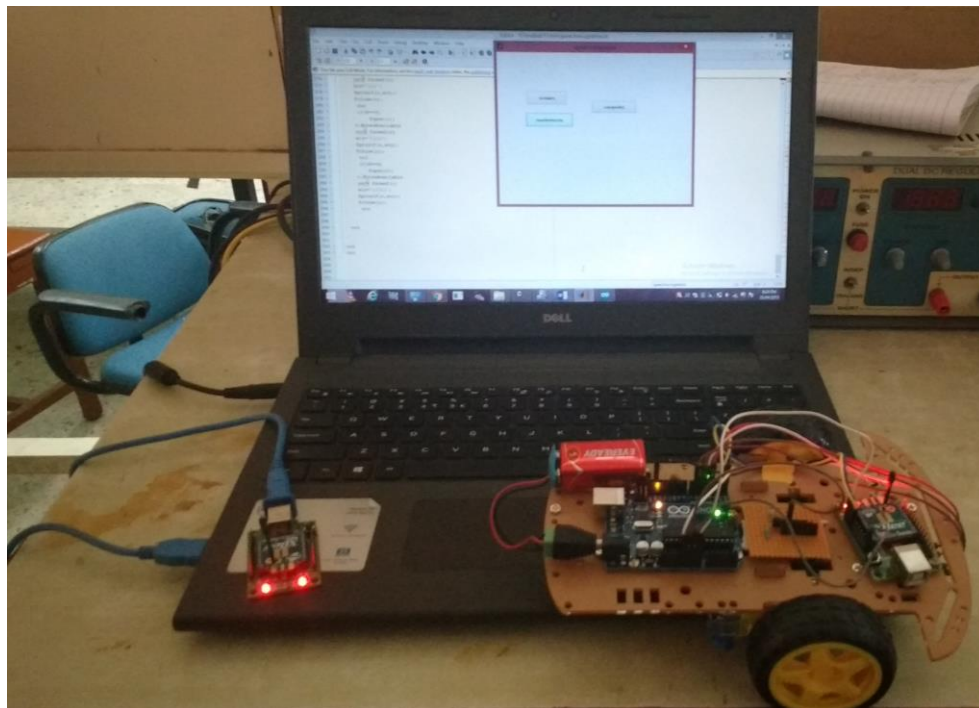


Fig. 5(i) Working model